

ANNUAL REPORT 2012-13

KVK, KATIHAR

1. GENERAL INFORMATION ABOUT THE KVK

1.1. Name and address of KVK with phone, fax and e-mail

Address	Telephone		E mail
Krishi Vigyan Kendra, Katihar	(06452) 246875	(06452) 246875	pckvkatihar@redifmail.com

1.2. Name and address of host organization with phone, fax and e-mail

Address	Telephone		E mail
	Office	FAX	
Bihar Agricultural University, Sabour, Bhagalpur	0641-2452606	0641-2452604	vcbausabour@gmail.com

1.3. Name of the Programme Coordinator with phone & mobile No

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Sunita Kushwah		9431417421	pckvkatihar@redifmail.com

1.4. Year of sanction of KVK: 2004

1.5. Staff Position (as on 1st April, 2013)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale with present basic	Date of joining	Permanent /Temporary	Category (SC/ST/OBC/ Others)
1	Programme Coordinator	Dr. Sunita Kushwah	I/C, Programme Coordinator	Horticulture	156000-39000	13.08.07	Permanent	Others
2	Subject Matter Specialist	Smt. Basanti Kumari	SMS(H.Sc.)	Home Science	156000-39000	20.11.07	Permanent	SC
3	Subject Matter Specialist	Dr. Sushil Kumar Singh	SMS (Agronomy)	Agronomy	156000-39000	15.06.09	Permanent	OBC
4	Subject Matter Specialist	Pankaj kumar	SMS (Extn.Edn.)	Extension Education	156000-39000	16.11.09	Permanent	OBC
5	Subject Matter Specialist	Dr. Rama kant Singh	SMS (Soil Science)	Soil Science	156000-39000	16.04.12	Permanent	GEN
6	Programme Assistant	Swarn Prabha Reddy	Programme Assistant (Lab Technician)	Agriculture	9300-34800	30.10.12	Permanent	OBC
7	Computer Programmer							
8	Farm Manager	Om Prakash Bharati	Farm Manager	Agriculture	9300-34800	05.11.12	Permanent	OBC
9	Accountant / Superintendent	Mukesh Kumar	Assistant	MBA Finance	9300-34800	09.04.13	Permanent	EBC
10	Stenographer							
11	Driver	Dharmendra Kumar	Jeep (Driver)		5400	11.04.05	Contractual	GEN
12	Driver							
13	Supporting staff	Arun Kr. Mandal	Peon		4200	01.07.05	Contractual	ST
14	Supporting staff							

1.6. Total land with KVK (in ha): 20ha

S. No.	Item	Area (ha)
1	Under Buildings	2.00
2.	Under Crops	6.00
3.	Orchard/Agro-forestry	5.00
4.	Others	7.00

1.7. Infrastructure Development:

A) Buildings

S. No.	Name of building	Not yet started	Completed up to plinth level	Completed up to lintel level	Completed up to roof level	Totally completed	Plinth area (Sq.m)	Source of funding
1.	Administrative Building							
2.	Farmers Hostel					✓		ICAR
3.	Staff Quarters (6)				✓			ICAR
4.	Demonstration Units (2)					✓		ICAR
5	Fencing							ICAR
6	Rain Water harvesting structure							ICAR
7	Threshing floor					✓		ICAR
8	Farm godown					✓		ICAR
9.	Others							

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Bolero Jeep	2005	4.65		Good
Tractor M.F	2005	5.00		Good

C) Equipment & AV aids

Name of equipment	Year of purchase	Cost (Rs.)	Present status
Xerox Machine Canon	2006	1,00,000	Good
Camera (Digital)	2007	15,000	Good
TV with DVD	2007	15,000	Good
Generator Set	2009	49,500	Good
Computer with Accessories	2008	50000	Good
Digital Weighing machine	2011	19500	Good
PA System	2011	24679	Good
Projector with Accessories	2011	99800	Good

D) Farm Implements

Name of equipment	Year of purchase	Cost (Rs.)	Present Status	Source Of fund
Power reaper Tractor operator	2012	79500	Good	ICAR
Cultivator 9 tine	2012	17500	Good	ICAR
Power Sprayer	2012	9500	Good	ICAR
Disc Harrow 12 disc	2012	38500	Good	ICAR
Tractor operated Winnower	2012	14500	Good	ICAR
Power chain sow	2012	38500	Good	ICAR
Thresher (Multi crop)	2012	87500	Good	ICAR
Rotavator	2012	87840	Good	ICAR
Disc plough 2 disc	2012	20500	Good	ICAR
Land leveler	2011	9000	Good	RF
Hand winover	2011	4000	Good	RF
Mobile Seed processing plant	2011	970000	Good	RKVY
Tractor drawn reaper	2011	57000	Good	RKVY
Zero till seed cum fertilizer drill	2011	39480	Good	RKVY

1.8. A). Details SAC meeting* conducted in the year

Sl.No.	Date	Number of Participants	Salient Recommendations	Action taken	If not conducted, state reason
1	22.06.2012	33	<ol style="list-style-type: none"> 1. All the activity should be conducted in the adopted village 2. PRA should be preprad by Krishi Vigyan Kendra for the adopted village 3. The Blocks away from the district head quarter must covered by the center 4. Mushroom production should be start. 5. Development of nursery should be initiated. 6. Worked on jute, makhana crops, aromatic & medicinal plants 7. Krishi Vigyan Kendra also use resource person farmers 8 .No repetition of farmer in exposure visit organized by Krishi Vigyan Kendra. 	<ol style="list-style-type: none"> 1. Work is going on as par the recommendation s. 2. PRA conducted 3. All the blocks Covered through kishan Choupal mostly farthest blocks kishan choupal schedule attach 4. Mushroom unit established and mushroom production started 5. Development of nursery is initiated and production started. 6. Mostly FLD initiated in jute and makhana 7. Krishi Vigyan using resource person. 8. Attention taken about exposure visit of organized by KVK, Katihar 	

2. DETAILS OF DISTRICT (2012-13)

2.1 Major farming systems/enterprises (based on the analysis made by the KVK)

S. No	Farming system/enterprise
1.	Paddy-Wheat based farming system
2.	Paddy-Maize based farming system
3.	Paddy- Rai- Boropaddy based farming system
4.	Fish Culture
5.	Bamboo Production & Processing
6.	Mushroom Production
7.	Makhana Cultivation and primary processing
8.	Poultry production
9.	Vermi Compost production

2.2 Description of Agro-climatic Zone & major agro ecological situations (based on soil and topography)

S. No	Agro-climatic Zone	Characteristics
1.	Zone-II (North – East Alluvial Plain)	High Temperature High Humidity Sandy to clay soil, Flood prone

S. No	Agro ecological situation	Characteristics
1.	Up land sandy soil	Suitable for maize, wheat, Banana, Vegetables & fruits
2.	Medium Sandy loam soil	Wheat, Maize, Jute, Rice, Oil seeds & pulses & vegetable & fruits cultivation
3.	Low lying clay soil with flood & water lodging condition	Suitable for deep water & Boro paddy, Makhana & Para Pulses
4.	Diara land of Kosi, Ganga and Mahananda with sandy to loamy soil	Rabi Maize, wheat oil seeds pulses & cucurbitaceous vegetable including parwal Flooded during Kharif Season

Source: - ATMA SREP

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1	Up land sandy soil	Suitable for vegetables wheat, maize, Banana	
2	Medium Loamy Soil	Well drained rich in organic carbon suited for wheat, Maize, oil seeds and pulses & vegetables	
3	Low lying clay soils	Suitable for makhana Boro Rice, fishery etc	
4	New alluvial diara land soil	Deposition of clay soil year after year good for rabi crops.	

2.4. Area, Production and Productivity of major crops cultivated in the district

S. No	Crop	Area (ha)	Production (q)	Productivity (q/ha)
1	Paddy			
2	Maize(rabi)			
3	Wheat			
4	Arhar			
5	Lentil			
6	Urd			
7	Moong			
8	Mustard			
9	Boro rice			

2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	
April ,2012	48.60			
May,2012	21.78			
June ,2012	110.88			
July ,2012	318.26			
August,2012	117.75			
September,2012	195.58			
October ,2012	94.24			
November,2012	00			
December,2012	00			
January,2013	00			
February,2013	10.62			
March,2013	00			
Total	917.71			

Source: - D.A.O Statistics and AWS

2.6. Production and productivity of livestock, poultry, fisheries etc. in the district

Category	Population	Production	Productivity
Cattle			
<i>Crossbred</i>	26496		
<i>Indigenous</i>	529273		
Buffalo	99477		
Sheep			
<i>Crossbred</i>	22		
<i>Indigenous</i>	9097		
Goats	601767		
Pigs			
<i>Crossbred</i>	760		
<i>Indigenous</i>	22695		
Rabbits			
Poultry			
Hen	772015		
<i>Desi</i>			
<i>Improved</i>			
Duck	14122		
Turkey and others	2946		
Category	Area	Production	Productivity
Fish			
Marine			
Inland			
Prawn			
Scampi			
Shrimp			

2.6 Details of operational area / villages (2012-13)

Sl.No.	Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
	Katihar	Katihar	Bathna Chilmara	Vegetable Banana Boro Paddy, Oil Seeds Maize	Lack of high yielding variety, pest & diseases control	Introduction of high yielding varieties of ground crops
		Mansahi	Bishanpur	Banana Jute, Makhana, Wheat, Paddy , Maize, Vegetables	INM & IPM lacking	Introduction of high yielding varieties of ground crops
		Kadwa	Sonauli	Pulses, Vegetables, Paddy, Maize, Jute, Boro Paddy	INM & IPM lacking	Introduction of newly released jute varieties
		Barari	Sakraily	Banana, Maize, Pulses, Paddy, Wheat, Vegetables	Lack of high yielding variety, pest & diseases control	Introduction of newly released varieties of different crops

2.7 Priority thrust areas

S. No	Thrust area
1	Soil test based nutrition management in crop plants of the district
2	Development of Suitable cropping system for diara ,tal and alkaline land of the district
3	Implementation of women programmes in relation to food, nutrition and drudgery

3. TECHNICAL ACHIEVEMENTS

A. Details of target and achievement of mandatory activities by KVK during 2012-13

OFT				FLD			
1				2			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
8	8	98	96	17	22	135	218

Training				Extension activities			
3				4			
Number of Courses		Number of Participants		Number of activities		Number of participants	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
381	387	3126	3196				

Seed production

		Planting material (Nos.)	
5		6	
Target	Achievement (q)	Target	Achievement
Wheat	65.17	2000	2000
Paddy	66.90		
Til	3.00		
Moong	1.00		
Arhar	7.45		
Tori	3.00		

3.1 Achievements on technologies assessed and refined

A. Details of each On Farm Trial to be furnished in the following format

(Horticulture)

Title of OFT: To assess the technological option by utilizing vermicompost in cauliflower in terms of yield performance.

Problem definition: Cauliflower is the most important vegetable of Katihar district. The farmers generally applied cow dung & chemical fertilizers as nutrients. But the yield of cauliflower is low inspite of application of cow dung & chemical fertilizers.

Technology assessed:

TO.1 = Farmers practices 15 cart load cow dung + (N: P₂O₅: K₂O: 140:80:40)/ha

TO.2 = Vermicompost + @ 3 tonnes/ha + ½ RDF (N: P₂O₅: K₂O: 120:60:60)

TO.3 = Vermicompost + @ 1.5 ton/ha + ¾ RDF(N: P₂O₅: K₂O: 120:60:60)

Source of technology: - BCKV, West Bengal, Kalyani

Replication: - 10 Farmers.

Plot size: - 0.10 ha

Duration of trial: - 6 months

Performance Indicators:

Fertilizers doses	Curd quality	Yield (q/ha)	Net Return Rs./h	BC ratio
1. Farmers practice 15 cant load cow dung + (N: P ₂ O ₅ : K ₂ O : 140 :80:40)/ha	Yellowish, white	295	70000/-	1.9:1
2. Vermicompost @ 3t/ha +1/2 recommended dose (N : P ₂ O ₅ : K ₂ O : :120 : 60:60)	Yellowish, loose and small	275.50	42000/-	2.4:1
3. Vermicompost @ 1.5 t/ha + ¾ recommended dose (N : P ₂ O	Whitish, compact,	330	38000	2.7:1

Economic Indicators:

Treatments	Cost Cultivation of (Rs)	Gross Income (Rs)	Net Return (Rs)	BC Ratio
TO-1	48000/-	90000/-	42000/-	1.9:1
TO-2	50000/-	120000/-	70000/-	2.4:1
TO-3	52000/-	140000/-	88000/-	2.7:1

Farmers Reactions:

1. Adoption of technology by different group of farmers –

Vermicompost is beneficial for the crop health and field also. They are ready to start the vermicompost in the field.

2. Comparison with prevent technology:

Effect of vermicompost is better as comparison to the prevalent technology small volume of vermicompost is easily to handle.

3. Risk involved: Nil

4. Any attentive suggestions from the farmers:

Cattle rearing is a problem now a days due to lack to manpower so for vermin compost production cow dung availability is a problem of vermin compost commercially produces is availability at low cost than they will get benefited through it.

Suggestions for refinement : No.

(Horticulture)

Title of OFT : Assessment of open pollinated variety of brinjal for higher production.

Problem definition: In Katihar district brinjal is cultivated commercially on large scale. Farmers planted brinjal in rainy season for the vegetable purpose. But low yield with insect pest & disease is a major problem. Farmers needed high yielding wilt tolerant brinjal variety for the production. Hence, this trial has proposed to increase the yield by the brinjal and desire the disease and insect pest.

Technology assessed:

TO-1= Farmers Practice (Bangal brinjal local)

TO-2= Improved open pollinated variety BR-14

Source of technology: IIVR, Varanashi

Replication: - 10 Farmers.

Plot size: - 0.10 ha

Duration of trial: - 6 months

Performance Indicators:

Technological option	Disease Severity % (wilting problem) No. of disease plant/ 100 Plants	Borer Infestation	% increase in yield over control	Yield (q/ha)
TO-1 Farmers practices (Bangal Bingil local)	25.06	11.2	-	220.00
TO-2 Improved open pollinated variety BR-14	6.2	1.8	40.90	310

Economic Indicators:

	Production Cost	Gross Income	Yield/ha	Net Income/ return	BC Ratio
TO-1	50000/-	89580/-	220/-	39588/-	1.8:1
TO-2	45000/-	138020/-	310/-	93020/-	3.06:1

Farmers reaction

Adaption of technology by different group of farmers:

Impact of OFT was outstanding this year (2012-13) most of the farmers going to IIVR, Varanasi to colled the seed for production. They also demanded seed.

Comparison with prevalent Technology:

Previously farmer's were growing locally West Bangal produced of brinjal. Major problem was disease incidence and low yield. Farmers were taking that brinjal variety due to attractive dark purple

colour and fruit but they were not satisfied because they have no option of this variety. So we conducted trial to this brinjal.

Because colour of this variety was dark purple

Fruit size – 9.5 cm (width)

Fruit shape – round to oblong

Fruit weight – 325 g- 350g.

Fruit length – 13.5 cm

So the variety was superior in all the respect from the prevalent variety in terms of morphological characters.

Disease incidence % of (wilt) was very less in BR-14 and the existing variety was highly susceptible found in the trial. (25.6 %)

Borer Infestation : Was also reported very low in BR-14 But in existing variety its infestation was high i.e (11.2%) over all variety is good and considerable.

Risk Involved : Nil (as per the farmers)

Any alternative suggestion from the farmers seed availability at district level.

Feed Back :

Research :

To develop wilt tolerant / resist variety or develop POP for the wilt control.

Extension :

Seed availability is a problem. proper information about the variety is also a problem.

Suggestions for refinement :

Wilt & borer both are serious problem in the brinjal. if package of (Pesticides module) is available for the control than it would be better for the farmers.

OFT- (Agronomy)

Title : To assess the performance of fine/aromatic rice variety under irrigated medium land condition.

Problem Identified: In Katihar district farmers are not cultivating fine/aromatic rice commercially due to unavailability of suitable variety.

Micro - Farming situation: Medium irrigated land

Possible solution: Assessment of most suitable variety

TO-1 = Sugandha-5

TO-2 = Ragendra suvasini

TO-3 = Pusa 1176

To-4 = Pusa 44

TO-5 = PNR381

Source of technology: IARI, New Delhi & RAU Pusa

Replication: 7 Farmers

Plot size : 0.10 h

Duration of trial : 6 month

Treatment	Tiller/Plant	Yield (q/ha)	Gross return	Net return	B:C ratio
Sugandha-5	10.5	34.73	62514/-	36814/-	2.43
Ragendra suvasini	12.4	36.73	66114/-	40414/-	2.57
Pusa 1176	9.70	32.43	58374/-	32674/-	2.27
Pusa 44	11.2	38.47	69246/-	43546/-	2.69
PNR 381	13.0	40.22	72576/-	46876/-	2.82

Farmer's reaction:

1. PNR 381 is the most fruitful for farmers ready to start scented variety cultivation .
2. The benefit cost ratio is better than other comperative varieties
3. The infestation of insects & diseases is less in PNR 381.
4. The Milling quality of PNR 381 is good.
5. There will be a urgent need to taken this variety in seed production programme

Feed back:

1. Farmers are satisfied with cultivation of paddy Variety PNR 381.

OFT- (Agronomy)

Title: To test the performance of late sown mustard variety in Katihar district

Problem identified : Use of long duration varieties resulting in poor yield and aphid infestation

Hypothesis Formulated : Now on view of above problem there is need for selection and cultivation of proper variety is of prime importance

Micro-farming situation : Medium irrigated land

Possible solution to be compared: to improve the most suitable variety

Design: Randomized Block Design.

Technical option (TO) :

- TO-1 - local Variety
- TO-2 - Rajendra Sufalam
- TO-3 - RLC-1

Result								
S.No.	Tecnological option	Name of seed	No. of branched plant	No of Pods plants	Yield (q/ha)	Gross return(Rs/ha)	Net return(Rs/ha)	B:C Ratio
1	To-1	Local Variety	8	198	8.36	4600	650	1.16
2	TO-2	r. Suflam	14	272	11.5	6325	2375	1.6
3	TO-3	RLC-1	17	278	12.74	7000	3050	1.77

RLC-1 is found to be most suitable as it obtained higher gross return (Rs 7000/ha) and B:C ratio (1.77).

OFT- (Home Science)

Title : Dehydration of cauliflower.

Problem : Unscientific preservation of cauliflower then resulting in poor quality and small shelf use.

Hypothesis formulated: Cauliflower is the most important vegetable of Katihar district. As farmer has vest cauliflower almost at a same time, it create market glut leading to low market price. As a part of preservation of this vegetable the farm women cut cauliflower into pieces, wash thoroughly and dry in sun rays for 5 to 6 days and keep it in the air tight container. The cauliflower through this methods it preserved in very short time. They wanted the perfect remedy to over come this problem. There is an urgent need to the farmers to know about the preservative like potassium meta bisulphate to improve the quality and increase shelf life.

Possible solution to be compared : To improve the quality, increase shelf life by use of recommended preservative PMS & dry in sun rays.

Design : RBD

Technology option :

- T₁ : Washed + Cut into pieces + dried in sun light (farmer practice).
 T₂ : Washed + slice evenly + treated with KMS + dried in sun rays.
 T₃ : Washed + sliced evenly + Blanched + dried in sun rays.
 T₄ : Washed + sliced evenly + Blanched 3-4 minutes + treated in KMS + dried in sun rays.

Source of technology : RAU Pusa

Replication of farmer : 10 farmer

Cost of intervention : 1000/Farmer

Total Cost : 10,000/-

Result : Result of trials is given below-

Management practice	Weight Raw	Dry Weight	Colour Produce	Flavor	Keeping quality
1. Washed + cut into pieces + sun dry	5 kg	375 g	Dark Brown	Pungency	On long storage deteriorate with mouldy smell

2. Washed + slice evenly + treated with KMS + dry in sun rays	5 kg	360 g	Brown	Sulpher flavor	On long storage deteriorate their quality
3. Washed + slice evenly + blanched + dry in sun rays	5 kg	365 g	Light Brown	No flavor	Deteriorate colour & quality
4. Washed + slice evenly + Blanched + treated with KMS + dry in sun ray	5 kg	350g	Light White	No flavor	Even long storage remained & maintain colour

Farmer reaction:

1. Adoption of technology by different farmers. i.e. adopted by farmers.
2. Better practice from prevalent practice
3. No risk
4. Farmers are satisfied

Feed back : Farmers are very interested and adopt this technology.

OFT- (Home Science)

Title : Dehydration of different method and assessment of shelf like of potato chips.

Problem : Unscientific chips preparation resulting in poor quality and small shelf life.

Hypothesis : Potato is cultivated as a large area by farmer field and their availability through out year. As a part of preservation of potato, the farm women cut into circular pieces and boiled then thoroughly dry in sun rays for 6-7 hours. After dried it keep in the air tight contains/ the potato chip through this method get small shelf life and undesirable smell after some time. But scientifically preparation of potato chips, it get fresh & long time storage without deteriorate quality.

Possible solution to be compared : To improve the quality & increase shelf life by use of recommended preservation PMS & dry in sun ray.

Design : RBD

Technology option :

- TO₁ : Washed + cut circular into pieces + washed + dry in sun rays.
- TO₂ : Washed + cut circular slice evenly + blanched 3-4 minutes + dry in sun rays.
- TO₃ : Washed + cut circular slice evenly + blanched 3-4 minutes + treated with KMS + dried sun rays.
- TO₄ : Washed + cut circular slice + treated with KMS + dried in sun rays.

Source of technology: RAU Pusa

Replication : 10 farmers

Cost of intervention: 1000/-

Result: Result of trials is given below-

Management practice	Weight Raw(BT)	Dry Weight(AT)	Colour Produce	Flavor	Keeping quality
1. Washed + cut circular pieces + washed +dry in sun ray	2 kg	340 g	Dark Brown	No flavor	Deteriorated quality after long time
2. Washed + cut circular slice + treated with KMS + dry in	2 kg	320 g	Dark Brown	Sulpher flavor	On long storage

sun rays					deteriorate their quality
3. Washed + cut circular slice + blanched + dry in sun rays	2 kg	310 g	Light Brown	No flavor	Deteriorate colour & quality
4. Washed + cut circular slice/ pieces evenly + Blanched 3-4 minutes + treated with KMS + dry in sun ray	2 kg	310 g	Off white	No flavor	On long storage remain white colour & maintain quality

Farmers reaction:

- i. Adopted by farmers
- ii. Better practice from prevalent practice
- iii. No risk
- iv. Farmers are satisfied.

Feed back : Farmers are satisfied and interested in adoption.

OFT- (Soil Science)

Title: To assess the technological option by utilizing biofertilizer (azotobactor and PSB) in hybrid paddy in terms of yield performance for Katihar district

Problem definition: Hybrid rice is most important cereal crop for farmers due to it's highly yield performance. The farmers are aware how we take better result of hybrid rice with biofertilizer. They are applying biofertilizers for cultivation of hybrid rice.

Micro-farming situation: Medium irrigated land

Possible solution to be compared: to improve yield performance of hybrid paddy by the use of recommended doses of fertilizers with bio-fertilizer i.e. azotobactor and PSB.

Design: Randomized block design.

Technical option (TO)

TO-1= Farmers Practice (100kg N/ha through urea and DAP, 40 kg P₂O₅ through DAP and 20 kg K₂O through Mureat of Potas)

TO-2= 150kg N/ha through urea and DAP, 60 kg P₂O₅ through DAP and 40 kg K₂O through Mureat of Potas) Azotobactor @ 4kg ha⁻¹

TO-3= 150kg N/ha through urea and DAP, 60 kg P₂O₅ through DAP and 40 kg K₂O through Mureat of Potas) Azotobactor + PSB @ 5kg ha⁻¹

Source of technology: BAU Sabour

Replication: 10 Farmers.

Plot size: 0.10 ha

Duration of trial: 6 months

Treatments	Plant Height (cm)			No of Tillers /hill		Productive tillers/ seq mt.	Weight (1000 gm)	Panicle weight (g)	Filled grain (per Panicle)	Grain yield (Qt/ha)	Straw yield (qt/ha)	Gross income (Rs/ha)	Cost of Cultivation (Rs./ha)	Net Return (Rs/ha)	BC ratio
	Tillering	Flowering	Harvesting	Tillering	Flowering										
TO-1	45	92	101	10	12	415	21.46	2.43	124	58	83	54615	16512	38103	3.31
TO-2	47	93	104	12	14	512	23.59	3.16	138	63	87	56316	16805	39511	3.35
TO-3	48	97	106	13	15	565	24.50	3.58	140	65	88	58510	17118	41392	3.41

Farmers reaction:

- i. Adoption of technology by different group of farmers: Farmers are interested to adopt this technology
- ii. Comparison with prevalent practices: Findings of these technologies proved that azotobactor and psb is helpful to increase the productivity of hybrid paddy.
- iii. Risk involved : Farmers awareness about the use of azotobactor and psb
- iv. Any alternative suggestion from the farmers : Easy Availability of azotobactor and psb

Feedback: To research/extension/ policy planning about the performance of the technology.

- i. If do not satisfy the reason for it: Satisfied by farmers / scientist
- ii. Suggestions for refinement if any.

OFT-(Soil Science)

Title: To assess the technological option by utilizing split doses of nitrogen on performance of wheat production for Katihar district.

Problem identified: Wheat is an important cereal crop of Koshi region especially Katihar district but due to the lack of awareness among the farmers about nutrient management practices, which resulting in low yield levels due to imbalance and inadequate application of fertilizer levels. Hence there is a need for conducting experiment with different timing of nitrogen application to improve nitrogen use efficiency .Therefore to improve uptake and to obtain response at higher levels of nitrogen application there is need to assess the technological option of utilizing split doses of nitrogen on performance of wheat production for Katihar district.

Micro-farming situation: Medium irrigated land

Possible solution to be compared: to improve yield performance of wheat by the use of recommended doses of fertilizers especially the use of nitrogen at different stages.

Design:- Randomized block design.

Technical option (TO)

TO-1= Farmers Practice

- (i) 60kg N/ha through urea,
60 kg P₂O₅ through SSP and
40 kg K₂O through Murate of Potash) as basal dose
- (ii) 60 kg N/ha after first Irrigation

TO-2= (i) 75kg N/ha through urea,
60 kg P₂O₅ through SSP and
40 kg K₂O through Murate of Potash) as basal dose
(ii) 40 kg N/ha after first Irrigation (CRI Stage)
(iii) 35 kg N/ha after Second Irrigation (Tillering Stage)

TO-3= (i) 75kg N/ha through urea,
60 kg P₂O₅ through SSP and
40 kg K₂O through Murate of Potash) as basal dose

- (ii) 25 kg N/ha after first Irrigation (CRI Stage)
- (iii) 25 kg N/ha after Second Irrigation (Tillering Stage)
- (iv) 25 kg N/ha after Third Irrigation (Jointing Stage)

- TO-4= (i) 75kg N/ha through urea,
60 kg P₂O₅ through SSP and
40 kg K₂O through Murate of Potash) as basal dose
- (ii) 20 kg N/ha after first Irrigation
 - (iii) 20 kg N/ha after Second Irrigation
 - (iv) 20 kg N/ha after third Irrigation (Jointing Stage)
 - (iv) 15 kg N/ha after fourth Irrigation (Panicle Initiation Stage)

Performance Indicator :

Treat ment	Plant height (cm)	No. of tiller	no. of bearing tiller	no. of non bearing tillers	No. of Grain/spick	1000 seed weight	seed yield (q/ha)	Straw Yield (qt/ha)
T1	90	11	8	2	40.13	41.72	33.48	52.23
T2	97	13	10	3	42.97	43.89	47.15	68.48
T3	92	11	9	2	42.21	43.11	40.94	55.15
T4	85	11	9	2	41.47	42.12	39.30	53.86

Economic Indicator :

Treat ment	Toal Incom (Rs)			cost of cultivation (rs)	BC ratio
	Grain	Straw	Total		
T1	36832.92	26117.24	36859.04	17437	2.11
T2	51863.72	34239.42	86103.13	17637	4.88
T3	45036.91	27576.32	72613.23	17837	4.07
T4	43231.23	26930.56	70161.79	18037	3.89

OFT- (Extension Education)

Title : To test the effect of Bio- fertilizers on the yield performance of wheat crop

Problem identified: High dose of fertilizers& Lower productivity of crops

Micro-farming situation: Medium irrigated land

Possible solution to be compared: To improve the soil and yield of wheat crop

Design: Randomized Block Design.

Technical option (TO)

- | | |
|----------------|---|
| T ₁ | Farmers practice (no use of biofertiliser) |
| T ₂ | Seed treatment with Azotobacter and PSB |
| T ₃ | Soil treatment wih Azotobacter and PSB |

Result Awaited

OFT- (Extension Education)

Title : Varietal evaluation

Problem identified : To Study the comparative performance of different Jute varieties

Micro-farming situation: Medium irrigated land

Possible solution to be compared: To improve the fibre percentage and fibre quality of jute crop.

Design: Randomized Block Design.

Technical option (TO)

- | | |
|----------------|----------------------------|
| T ₁ | JRO-524 (farmers practice) |
| T ₂ | JRO-66 |
| T ₃ | S-19 |
| T ₄ | JRO-128 |

Result Awaited

3.2 Achievements of Frontline Demonstrations

A.. Details of FLDs implemented during 2012-13 (Information is to be furnished in the following **three tables** for each category i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.**)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration		
					Proposed	Actual	SC/ST	Others	Total
1	Arhar	Pulse Production	Seed (NDA-1)	Kharif 2012	20	20		40	40
2	Paddy	Crop production	Seed (R. Bhagwati)	Kharif 2012	5	5.6	6	14	20
3	Brinjal	Vegetable Production	Seed (Hy-6, Hy-9, R. baigan)	Kharif 2012	1	1.5	3	7	10
4	Tomato	Vegetable Production	Seed (Pusa Rohini, Kashi Vishwash)	Kharif 2012	1	1.5	2	6	8
5	Palak	Vegetable Production	Seed (Pusa Anmol)	Kharif 2012		0.5	3	7	10
6	Cauliflower	Vegetable Production	Seed (PH-2)	Kharif 2012		0.5	2	8	10
7	Carrot	Vegetable Production	Seed(Pusa Keshar)	Kharif 2012		0.5	3	7	10
8	Radish	Vegetable Production	Seed (Pusa Chetki)	Kharif 2012		0.5	1	9	10
9	Wheat	Crop production	Seed (HD-2733)	Rabi 2012	8	8	30	70	100
01	Boro Paddy (Subhasini)	Crop Production	Seed (subhashini)	Rabi 2012	2	2	1	4	5
11	Makhana	Fruit Production	Seed (Selection)	Rabi 2012				10	10

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil (kg/ha)			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Paddy	Kharif 2012	Irrigated	Sandy loam	220	20	282	Moong	20.07.12	26.10.12		
Wheat	Rabi	Irrigated	Sandy loam				Paddy	27.11.12	awaited		

Performance of FLD

Oilseeds:

Frontline demonstrations on oilseed crops - NA

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)					
					Demo	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR		
Total																	

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

Pulses

Frontline demonstration on pulse crops:

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)					
					Demo	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR		
Arhar	Pulse Production	Seed (NDA-1)	20	3	Awaited	Awaited											
Total																	

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

Maize, cotton and lentil as special programme: NA

Frontline demonstration on maize, cotton and lentil: NA

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)					
					Demo	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR		
Total																	

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

Other crops :

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demonstration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Paddy	Crop production	Seed	20	5.6	34	25	36			23075	41550	18475	1.8	23075	25500	2425	1.1
Wheat	Crop production	Seed	100	8	Awaited												
Boro Paddy	Crop Production	Seed	5	2	Awaited												
Millets																	
Vegetable crops																	
Palak	Vegetable Production	Seed	10	0.5	104	91	14			30000	62400	32400	2.08	30000	54600	24600	1.82

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

Fisheries:NA

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.)				*Economics of check (Rs.)				
					Demons ration	Check		Demons ration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR	
Common carps																		
Mussels																		
Ornamental fishes																		
Others (pl.specify)																		
Total																		

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

Other enterprises :NA

Category	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.) or Rs./unit				*Economics of check (Rs.) or Rs./unit					
				Demons ration	Check		Demons ration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR		
Oyster mushroom																		
Button mushroom																		
Vermicompost																		
Sericulture																		
Apiculture																		
Others (pl.specify)																		
Total																		

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

Women empowerment:NA

Category	Name of technology	No. of KVKs	No. of demonstrations	Name of observations	Demonstration	Check
Women						
Pregnant women						
Adolescent Girl						
Other women						
Children						
Neonats						
Infants						
Children						

Blackgram										
Bengalgram										
Redgram										
Others (pl.specify)										
Total										
Vegetable crops										
Cauliflower	PH-2	10	0.5	148	114	30				
Capsicum										
Cucumber										
Tomato										
Brinjal										
Okra										
Onion										
Potato										
Field bean										
Others (pl.specify)										
Total										
Commercial crops										
Cotton										
Coconut										
Others (pl.specify)										
Total										
Fodder crops										
Napier (Fodder)										
Maize (Fodder)										
Sorghum (Fodder)										
Others (pl.specify)										
Total										

NB: Attach few good action photographs with title at the back with pencil

Analytical Review of component demonstrations (details of each component for rained / irrigated situations to be given separately for each season).

Crop	Season	Component	Farming situation	Average yield (q/ha)	Local check (q/ha)	Percentage increase in productivity over local check
Arhar	Kharif 2012	Seed (NDA-1)	Irrigated	awaited	-	
Paddy	Kharif 2012	Seed (R. Bhagwati)	Irrigated	34	25	36
Brinjal	Kharif 2012	Seed(R. Baigan)	Irrigated	205	153	34
Tomato	Kharif 2012	Seed (Pusa Rohini, Kashi Vishwash)	Irrigated	162	114	42

Palak	Kharif 2012	Seed (Pusa Anmol)	Irrigated	104	91	14
Cauliflower	Kharif 2012	Seed (PH-2)	Irrigated	148	114	30
Carrot	Kharif 2012	Seed (pusa Keshar)	Irrigated	121	97	24
Radish	Kharif 2012	Seed (Pusa Chetki)	Irrigated	130	96	35
Wheat	Rabi 2012	Seed (H.D. 2733)	Irrigated	awaited		
Boro Paddy	Rabi 2012	Seed (Sabhagi)	Irrigated	awaited		
Makhana	Rabi 2012	Seed	Irrigated	awaited		

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1. Arhar(NDA-1)	Crop performance is good
2. Paddy (R. Bhagwati)	Yield performance, Aromatic quality and cooking quality is good
3. Wheat (H.D. 2733)	Crop performance is good
4. Brinjal (R. Baigan)	Yield performance, fruits setting, size and quality is good
5. Tomato (Pusa Rohini, Kashi Vishwash)	Yield performance and fruits quality is good
6. Palak (Pusha Anmol)	Yield performance is good
7. Cauliflower (PH-2)	Yield performance, flower setting quality and size is good
8. Carrot (pusha Keshar)	Yield performance and quality is good
9. Radish (Pusha Chetki)	Yield performance and quality is good
10. Boro Paddy (Suhasini)	Crop performance is good
11. Makhana	Crop Nursery is in good condition

Farmers' reactions on specific technologies

S. No	Feed Back
1. Arhar (NDA-1)	Accepted to the demonstrated variety NDA-1
2. Paddy (R. Bhagwati)	Accepted to the demonstrated variety R. Bhagwati
3. Wheat (H.D. 2733)	Accepted to the demonstrated variety HD-2733
4. Brinjal (R. Baigan)	Accepted to the demonstrated variety R. Baigan
5. Tomato (Pusa Rohini, Kashi Vishwash)	Accepted to the demonstrated variety Pusa Rohini, Kashi Vishwash
6. Palak (Pusha Anmol)	Accepted to the demonstrated variety Pusha Anmol
7. Cauliflower (PH-2)	Accepted to the demonstrated
8. Carrot (Pusha Keshar)	Accepted to the demonstrated variety Pusha Keshar
9. Radish (Pusha Chetki)	Accepted to the demonstrated variety Pusha Chetki
10. Boro Paddy (Suhasini)	Mode of farmers are positive
11. Makhana	Mode of farmers are positive

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	5	15.04.12 08.08.12 05.12.12 04.01.13 12.02.13 02.03.13	45 47 162 80 76 80	
2	Farmers Training	4	12.06.12 16.09.12 15.11.12 02.02.13	20 25 22 28	
3	Media coverage			many	
4	Training for extension functionaries				

3.3 Achievements on Training (Including the sponsored and FLD training programmes):

A) ON Campus

Thematic Area	No. of Courses	No. of Participants									Grand Total			
		Other			SC			ST			M	F	T	
		M	F	T	M	F	T	M	F	T				
(A) Farmers & Farm Women														
I Crop Production														
Weed Management	3	16	4	20	3	1	4	1		1	20	5	25	
Resource Conservation Technologies	2	20	3	23	3	1	4	2		2	25	4	29	
Cropping Systems	5	19	6	25	4	2	6			0	23	8	31	
Crop Diversification	1	11	2	13	4	1	5	2	2	4	17	5	22	
Integrated Farming	3	23	6	29	2	1	3	1	1	2	26	8	34	
Water management	2	18	4	22	2	2	4	1		1	21	6	27	
Seed production	2	22	4	26	1		1			0	23	4	27	
Nursery management	2	16	3	19	2	1	3	2		2	20	4	24	
Integrated Crop Management	5	18	1	19	2	2	4	1		1	21	3	24	
Fodder production														
Production of organic inputs														
Others, (cultivation of crops)														
Total	25	163	33	196	23	11	34	10	3	13	196	47	243	

Post harvest technology and value addition													
Others, if any													
III Soil Health and Fertility Management													
Soil fertility management	4	16	6	22	3	2	5	1		1	20	8	28
Soil and Water Conservation				0			0			0	0	0	0
Integrated Nutrient Management	5	18	3	21	4	1	5	1		1	23	4	27
Production and use of organic inputs	6	17	5	22	3	2	5	2	1	3	22	8	30
Management of Problematic soils	2	16	4	20	3	2	5	1	1	2	20	7	27
Micro nutrient deficiency in crops	5	19	3	22	4	3	7	2	1	3	25	7	32
Nutrient Use Efficiency	2	21	2	23	2	2	4	1	1	2	24	5	29
Soil and Water Testing	1	19	3	22	4	2	6	1	1	2	24	6	30
Others, if any													
Total	25	126	26	152	23	14	37	9	5	14	158	45	203
IV Livestock Production and Management													
Dairy Management													
Poultry Management													
Piggery Management													
Rabbit Management													
Disease Management													
Feed management													
Production of quality animal products													
Others, if any Goat farming													
V Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition gardening	2		22	22		5	5		1	1	0	28	28
Design and development of low/minimum cost diet	1		26	26		6	6			0	0	32	32
Designing and development for high nutrient efficiency diet	7		24	24		4	4		2	2	0	30	30
Minimization of nutrient loss in processing	2		19	19		5	5		2	2	0	26	26
Gender mainstreaming through SHGs	2		21	21		7	7	1	1	2	1	29	30
Storage loss minimization techniques	1		25	25		4	4		2	2	0	31	31
Value addition	5		20	20		5	5		2	2	0	27	27
Income generation activities for empowerment of rural Women	7		25	25		8	8		2	2	0	35	35
Location specific drudgery reduction technologies	5		23	23		3	3		1	1	0	27	27
Rural Crafts	1		21	21		4	4		1	1	0	26	26
Women and child care	5		19	19		4	4		1	1	0	24	24
Others, if any													
Total	38	0	245	245	0	55	55	1	15	16	1	315	316
VI Agril. Engineering													
Installation and maintenance of micro irrigation systems													
Use of Plastics in farming practices													

Production of small tools and implements													
Repair and maintenance of farm machinery and implements													
Small scale processing and value addition													
Post Harvest Technology													
Others, if any													
VII Plant Protection													
Integrated Pest Management													
Integrated Disease Management													
Bio-control of pests and diseases													
Production of bio control agents and bio pesticides													
Others, if any													
VIII Fisheries													
Integrated fish farming													
Carp breeding and hatchery management													
Carp fry and fingerling rearing													
Composite fish culture													
Hatchery management and culture of freshwater prawn													
Breeding and culture of ornamental fishes													
Portable plastic carp hatchery													
Pen culture of fish and prawn													
Shrimp farming													
Edible oyster farming													
Pearl culture													
Fish processing and value addition													
Others, if any													
IX Production of Inputs at site													
Seed Production													
Planting material production													
Bio-agents production													
Bio-pesticides production													
Bio-fertilizer production													
Vermi-compost production													
Organic manures production													
Production of fry and fingerlings													
Production of Bee-colonies and wax sheets													
Small tools and implements													
Production of livestock feed and fodder													
Production of Fish feed													
Others, if any													
X Capacity Building and Group Dynamics													
Leadership development	4	23	5	28	4	1	5	1	1	2	28	7	35

Group dynamics	9	32	10	42	5	2	7	2	1	3	39	13	52
Formation and Management of SHGs	6	25	9	34	4	2	6	1	1	2	30	12	42
Mobilization of social capital	7	29	8	37	6	1	7	1	1	2	36	10	46
Entrepreneurial development of farmers/youths	9	31	11	42	7	3	10	2	1	3	40	15	55
WTO and IPR issues													
Others, if any	3	26	8	34	9	2	11	1	1	2	36	11	47
XI Agro-forestry													
Production technologies													
Nursery management													
Integrated Farming Systems													
Gender mainstreaming through SHg													
XII Others (Pl. Specify)													
Total	38	166	51	217	35	11	46	8	6	14	209	68	277
(B) RURAL YOUTH													
Mushroom Production	1	11	2	13	2	1	3			0	13	3	16
Bee-keeping													
Integrated farming													
Seed production													
Production of organic inputs													
Integrated Farming													
Planting material production													
Vermi-culture	1	7	2	9	3	2	5	1		1	11	4	15
Sericulture													
Protected cultivation of vegetable crops													
Commercial fruit production													
Repair and maintenance of farm machinery and implements													
Nursery Management of Horticulture crops	1	7	2	9	4	2	6	1		1	12	4	16
Training and pruning of orchards													
Value addition													
Production of quality animal products													
Dairying													
Sheep and goat rearing													
Quail farming													
Piggery													
Rabbit farming													
Poultry production													
Ornamental fisheries													
Para vets													
Para extension workers													
Composite fish culture													
Freshwater prawn culture													
Shrimp farming													
Pearl culture													

Cold water fisheries													
Fish harvest and processing technology													
Fry and fingerling rearing													
Small scale processing													
Post Harvest Technology													
Tailoring and Stitching													
Rural Crafts													
Others, if any													
TOTAL	3	25	6	31	9	5	14	2	0	2	36	11	47
(C) Extension Personnel													
Productivity enhancement in field crops	2	11	2	13	4	2	6	1	1	2	16	5	21
Integrated Pest Management													
Integrated Nutrient management	2	9	5	14	4	2	6			0	13	7	20
Rejuvenation of old orchards	1	10	3	13	5	1	6	1		1	16	4	20
Protected cultivation technology													
Formation and Management of SHGs													
Group Dynamics and farmers organization	1	9	4	13	2	1	3	1	1	2	12	6	18
Information networking among farmers													
Capacity building for ICT application													
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production													
Household food security													
Women and Child care													
Low cost and nutrient efficient diet designing													
Production and use of organic inputs													
Gender mainstreaming through SHGs													
Any other (Pl. Specify)													
TOTAL	6	39	14	53	15	6	21	3	2	5	57	22	79

B) OFF Campus

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
(A) Farmers & Farm Women													
I Crop Production													
Weed Management	8	28	8	36	4	2	6	2	1	3	34	11	45
Resource Conservation Technologies													
Cropping Systems	5	18	6	24	3	1	4	1		1	22	7	29
Crop Diversification	2	22	4	26	4	2	6	1	1	2	27	7	34
Integrated Farming	5	26	6	32	4	3	7	2	1	3	32	10	42
Water management													
Seed production	6	26	6	32	5	2	7	1		1	32	8	40
Nursery management	2	25	5	30	4	3	7	2	2	4	31	10	41
Integrated Crop Management	5	27	7	34	3	2	5	2	1	3	32	10	42
Fodder production													
Production of organic inputs													
Others, (cultivation of crops)													
Total	33	172	42	214	27	15	42	11	6	17	210	63	273
II Horticulture													
a) Vegetable Crops													
Production of low volume and high value crops	5	22	8	30	3	2	5	1	1	2	26	11	37
Off-season vegetables	6	25	4	29	4	2	6	2	1	3	31	7	38
Nursery raising	5	26	7	33	3	2	5	2		2	31	9	40
Exotic vegetables like Broccoli	3	24	4	28	4	1	5	1	1	2	29	6	35
Export potential vegetables													
Grading and standardization	4	21	7	28	5	2	7			0	26	9	35
Protective cultivation (Green Houses, Shade Net etc.)	6	20	7	27	4	3	7	2	1	3	26	11	37
Others, if any (Cultivation of Vegetable)													
Training and Pruning													
b) Fruits													
Layout and Management of Orchards	2	23	6	29	4	3	7	1	1	2	28	10	38
Cultivation of Fruit													
Management of young plants/orchards													
Rejuvenation of old orchards													
Export potential fruits													
Micro irrigation systems of orchards													
Plant propagation techniques													
Others, if any													
Total	31	161	43	204	27	15	42	9	5	14	197	63	260
c) Ornamental Plants													
Nursery Management													

Others, if any Goat farming													
V Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition gardening	7		21	21		15	15		2	2	0	38	38
Design and development of low/minimum cost diet	5		24	24		16	16		2	2	0	42	42
Designing and development for high nutrient efficiency diet	3		32	32		27	27		1	1	0	60	60
Minimization of nutrient loss in processing	8		28	28		26	26		3	3	0	57	57
Gender mainstreaming through SHGs	10		32	32		20	20		5	5	0	57	57
Storage loss minimization techniques				0			0			0	0	0	0
Value addition	12		22	22		12	12		2	2	0	36	36
Income generation activities for empowerment of rural Women	7		18	18		14	14			0	0	32	32
Location specific drudgery reduction technologies													0
Rural Crafts													0
Women and child care	5		36	36		24	24			0	0	60	60
Others, if any													0
Total	57	0	213	213	0	154	154	0	15	15	0	382	382
											2		
VI Agril. Engineering													
Installation and maintenance of micro irrigation systems													
Use of Plastics in farming practices													
Production of small tools and implements													
Repair and maintenance of farm machinery and implements													
Small scale processing and value addition													
Post Harvest Technology													
Others, if any													
VII Plant Protection													
Integrated Pest Management													
Integrated Disease Management													
Bio-control of pests and diseases													
Production of bio control agents and bio pesticides													
Others, if any													
VIII Fisheries													
Integrated fish farming													
Carp breeding and hatchery management													
Carp fry and fingerling rearing													
Composite fish culture													
Hatchery management and culture of freshwater prawn													
Breeding and culture of ornamental fishes													

Planting material production	1	12	2	14	4	2	6	1	1	2	17	5	22
Vermi-culture	2	8	2	10	4	1	5			0	12	3	15
Sericulture													
Protected cultivation of vegetable crops													
Commercial fruit production													
Repair and maintenance of farm machinery and implements													
Nursery Management of Horticulture crops	1	9	4	13	5	1	6	1	1	2	15	6	21
Training and pruning of orchards													
Value addition													
Production of quality animal products													
Dairying													
Sheep and goat rearing													
Quail farming													
Piggery													
Rabbit farming													
Poultry production	1	8	3	11	4	2	6	2	1	3	14	6	20
Ornamental fisheries													
Para vets													
Para extension workers													
Composite fish culture													
Freshwater prawn culture													
Shrimp farming													
Pearl culture													
Cold water fisheries													
Fish harvest and processing technology													
Fry and fingerling rearing													
Small scale processing													
Post Harvest Technology													
Tailoring and Stitching	2	7	5	12	4	2	6	1	1	2	12	8	20
Rural Crafts													
Others, if any													
TOTAL	10	63	22	85	28	13	41	7	6	13	98	41	139
(C) Extension Personnel													
Productivity enhancement in field crops	5	15	2	17	4	2	6	1	1	2	20	5	25
Integrated Pest Management													
Integrated Nutrient management	4	12	6	18	9	4	13			0	21	10	31
Rejuvenation of old orchards	4	10	3	13	5	4	9	1	1	2	16	8	24
Protected cultivation technology													
Formation and Management of SHGs													
Group Dynamics and farmers organization													
Information networking among													

Production of low volume and high value crops	7	40	11	51	5	3	8	2	1	3	47	15	62
Off-season vegetables	9	39	6	45	5	3	8	3	2	5	47	11	58
Nursery raising	9	43	9	52	5	3	8	2	0	2	50	12	62
Exotic vegetables like Broccoli	7	42	6	48	5	2	7	1	1	2	48	9	57
Export potential vegetables	2	16	3	19	2	2	4	1		1	19	5	24
Grading and standardization	9	50	13	63	9	5	14	2	0	2	61	18	79
Protective cultivation (Green Houses, Shade Net etc.)	6	20	7	27	4	3	7	2	1	3	26	11	37
Others, if any (Cultivation of Vegetable)													
Training and Pruning													
b) Fruits													
Layout and Management of Orchards		39	10	49	6	4	10	2	2	4	47	16	63
Cultivation of Fruit	2	14	4	18	2	2	4	1	1	2	17	7	24
Management of young plants/orchards	2	18	2	20	1	1	2			0	19	3	22
Rejuvenation of old orchards													
Export potential fruits	2	20	3	23	1	1	2	1		1	22	4	26
Micro irrigation systems of orchards	1	17	4	21	2	1	3	1		1	20	5	25
Plant propagation techniques	2	16	2	18	2		2			0	18	2	20
Others, if any													
c) Ornamental Plants													
Nursery Management													
Management of potted plants													
Export potential of ornamental plants													
Propagation techniques of Ornamental Plants													
Others, if any													
d) Plantation crops													
Production and Management technology													
Processing and value addition													
Others, if any													
e) Tuber crops													
Production and Management technology													

Processing and value addition													
Others, if any													
f) Spices													
Production and Management technology													
Processing and value addition													
Others, if any													
g) Medicinal and Aromatic Plants													
Nursery management													
Production and management technology													
Post harvest technology and value addition													
Others, if any													
III Soil Health and Fertility Management													
Soil fertility management	10	39	14	53	12	4	16	2	0	2	53	18	71
Soil and Water Conservation													
Integrated Nutrient Management	10	36	7	43	16	3	19	1	0	1	53	10	63
Production and use of organic inputs	11	30	11	41	17	9	26	3	2	5	50	22	72
Management of Problematic soils	4	38	10	48	21	5	26	2	2	4	61	17	78
Micro nutrient deficiency in crops	13	49	6	55	17	7	24	2	1	3	69	14	82
Nutrient Use Efficiency	8	43	6	49	20	4	24	1	1	2	64	11	75
Soil and Water Testing	2	43	5	48	18	5	23	2	2	4	63	12	75
Others, if any													
IV Livestock Production and Management													
Dairy Management													
Poultry Management													
Piggery Management													
Rabbit Management													
Disease Management													
Feed management													
Production of quality animal products													
Others, if any Goat farming													
V Home Science/Women empowerment													
Household food security by kitchen	9	0	43	43	0	20	20	0	3	3	0	66	66

gardening and nutrition gardening													
Design and development of low/minimum cost diet	6	0	50	50	0	22	22	0	2	2	0	74	74
Designing and development for high nutrient efficiency diet	10	0	56	56	0	31	31	0	3	3	0	90	90
Minimization of nutrient loss in processing	10	0	47	47	0	31	31	0	5	5	0	83	83
Gender mainstreaming through SHGs	12	0	53	53	0	27	27	1	6	7	1	86	87
Storage loss minimization techniques	1		25	25		4	4		2	2	0	31	31
Value addition	17	0	42	42	0	17	17	0	4	4	0	63	63
Income generation activities for empowerment of rural Women	14	0	43	43	0	22	22	0	2	2	0	67	67
Location specific drudgery reduction technologies	5		23	23		3	3		1	1	0	27	27
Rural Crafts	1		21	21		4	4		1	1	0	26	26
Women and child care	10	0	55	55	0	28	28	0	1	1	0	84	84
Others, if any													
VI Agril. Engineering													
Installation and maintenance of micro irrigation systems													
Use of Plastics in farming practices													
Production of small tools and implements													
Repair and maintenance of farm machinery and implements													
Small scale processing and value addition													
Post Harvest Technology													
Others, if any													
VII Plant Protection													
Integrated Pest Management													
Integrated Disease Management													
Bio-control of pests and diseases													
Production of bio control agents and bio pesticides													
Others, if any													
VIII Fisheries													

Integrated fish farming													
Carp breeding and hatchery management													
Carp fry and fingerling rearing													
Composite fish culture													
Hatchery management and culture of freshwater prawn													
Breeding and culture of ornamental fishes													
Portable plastic carp hatchery													
Pen culture of fish and prawn													
Shrimp farming													
Edible oyster farming													
Pearl culture													
Fish processing and value addition													
Others, if any													
IX Production of Inputs at site													
Seed Production													
Planting material production													
Bio-agents production													
Bio-pesticides production													
Bio-fertilizer production													
Vermi-compost production													
Organic manures production													
Production of fry and fingerlings													
Production of Bee-colonies and wax sheets													
Small tools and implements													
Production of livestock feed and fodder													
Production of Fish feed													
Others, if any													
X Capacity Building and Group Dynamics													
Leadership development	19	55	16	71	12	5	17	3	2	5	70	23	93
Group dynamics	15	77	17	94	16	4	20	3	2	5	96	23	119

Formation and Management of SHGs	14	47	17	64	10	6	16	2	2	4	59	25	84
Mobilization of social capital	7	29	8	37	6	1	7	1	1	2	36	10	46
Entrepreneurial development of farmers/youths	19	56	20	76	14	5	19	3	2	5	73	27	100
WTO and IPR issues	2	37	14	51	8	2	10			0	45	16	61
Others, if any	3	26	8	34	9	2	11	1	1	2	36	11	47
XI Agro-forestry													
Production technologies													
Nursery management													
Integrated Farming Systems													
Gender main streaming through SHG													
TOTAL													
(B) RURAL YOUTH													
Mushroom Production	2	21	6	27	5	3	8	1	1	2	27	10	37
Bee-keeping													
Integrated farming													
Seed production													
Production of organic inputs	2	9	2	11	4	3	7	1	1	2	14	6	20
Integrated Farming													
Planting material production	1	12	2	14	4	2	6	1	1	2	17	5	22
Vermi-culture	3	15	4	19	7	3	10	1	0	1	23	7	30
Sericulture													
Protected cultivation of vegetable crops													
Commercial fruit production													
Repair and maintenance of farm machinery and implements													
Nursery Management of Horticulture crops	2	16	6	22	9	3	12	2	1	3	27	10	37
Training and pruning of orchards													
Value addition													
Production of quality animal products													
Dairying													
Sheep and goat rearing													
Quail farming													
Piggery													
Rabbit farming													

Poultry production													
Ornamental fisheries													
Para vets													
Para extension workers													
Composite fish culture													
Freshwater prawn culture													
Shrimp farming													
Pearl culture													
Cold water fisheries													
Fish harvest and processing technology													
Fry and fingerling rearing													
Small scale processing													
Post Harvest Technology													
Tailoring and Stitching													
Rural Crafts													
Others, if any													
TOTAL													
(C) Extension Personnel													
Productivity enhancement in field crops	7	26	4	30	8	4	12	2	2	4	36	10	46
Integrated Pest Management													
Integrated Nutrient management	6	21	11	32	13	6	19	0	0	0	34	17	51
Rejuvenation of old orchards	4	10	3	13	5	4	9	1	1	2	16	8	24
Protected cultivation technology													
Formation and Management of SHGs													
Group Dynamics and farmers organization	1	9	4	13	2	1	3	1	1	2	12	6	18
Information networking among farmers													
Capacity building for ICT application													
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production													
Household food security													
Women and Child care	1		11	11		6	6		3	3	0	20	20

Low cost and nutrient efficient diet designing													
Production and use of organic inputs	2	10	3	13	5	2	7			0	15	5	20
Gender mainstreaming through SHGs	2	8	8	16	2	2	4			0	10	10	20
Any other (Pl. Specify)													
TOTAL	381	1477	836	2313	360	368	728	77	78	155	1915	1282	3196

Note: Please furnish the details of training programmes as **Annexure in the proforma** given below

Date	Clientele	Title of the training programme	Duration in days	Venue (Off / On Campus)	Number of participants			Number of SC/ST				
					Male	Female	Total	Male	Female	Total		

(D) Vocational training programmes for Rural Youth

Crop / Enterprise	Identified Thrust Area	Training title*	Duration (days)	No. of Participants			Self employed after training			Number of persons employed else where
				Male	Female	Total	Type of units	Number of units	Number of persons employed	
	Vermi-compost Production	Technique for preparation of vermi compost,	3	25	-	25		25	25	
	Graft & Gooty	Entrepreneurship development through nursery	3	25	-	25		25	25	
	Seed Production	Income generation through seed production	3	22	3	25		1	1	

*training title should specify the major technology /skill transferred

Soil health Camp	2										Many
Animal Health Camp	1										Many
Agri mobile clinic											
Soil test campaigns											
Farm Science Club Conveners meet											
Self Help Group Conveners meetings	10										Many
Mahila Mandals Conveners meetings	12										Many
Celebration of important days (specify)											
Any Other (Specify)											

3.5 Production and supply of Technological products Village seed

Crop	variety	Quantity of seed (q)	Value (Rs)	Number of farmers provided
Cereals				
Oilseeds				
Pulses				
Commercial crops				
Vegetables				
Flower crops				
Spices				
Fodder crop seeds				
Fiber crops				
Forest Species				
Others				
Total				

KVK farm

Crop	Variety	Quantity of seed (q)	Value (Rs)	Number of farmers provided
Cereals				
Paddy	Rajendra bhagwati Ushar Dhan 3	49.99 28	65903/- 32003/-	
Wheat	HD-2733, PBW-373	45.20 19.97	154640/- 57080/-	
Commercial crops				
Horticultural Crops			20000/-	
Vegetables				
Flower crops				
Spices				
Fodder crop seeds				
Fiber crops				
Forest Species				
Others	Fish ponds		150000/-	
Til	Krishna	3		
Moong	Samrat	1	3040/-	
Arhar	NDA-1	7.45	30000/-	
Tori	Suflam	3	11514/-	

Production of planting materials by the KVK :

Crop	variety	Quantity of seed (q)	Value (Rs)	Number of farmers provided
Commercial				
Vegetable seedlings				
Fruits				
Citrus	Seed less Kagji, Pant C 1	1500	3000/-	
Ornamental plants				
Medicinal and Aromatic				
Plantation				
Spices				
Tuber				
Fodder crop saplings				
Forest Species				
Others				
Total				

Production of Bio-Products;NA

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	No. of Farmers	No. of KVKs
		Kg			
Bio Fertilisers					
Bio-pesticide					
Bio-fungicide					
Bio Agents					
Others					
Total					

Production of livestock materials;NA

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers	No. of KVKs
Dairy animals					
Cows					
Buffaloes					
Calves					
Others (Pl. specify)					
Poultry					
Broilers					
Layers					
Duals (broiler and layer)					
Japanese Quail					
Turkey					
Emu					
Ducks					
Others (Pl. specify)					
Piggery					
Piglet					
Others (Pl. specify)					
Fisheries					
Indian carp					
Exotic carp					
Others (Pl. specify)					
Total					

3.6. Literature Developed/Published (with full title, author & reference)

(A) KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.)

(B) Literature developed/published

Item	Title	Authors/Editor name	Number
Extension literature , 5	गेहूँ उत्पादन प्रौद्योगिकी	Dr. S.K. Singh	3000
	मक्का उत्पादन की उन्नत तकनिक	Dr. S.K. Singh	3000
	महिला सशक्तिकरण हेतु स्वयं सहायता समुह का	Sri Pankaj Kumar	3000

	गठन		
	कृषि रक्षा रसायनों का प्रयोग	Dr. R.K. Singh	3000
	केला की व्यवसायिक खेती	Dr. Sunita Kushwah	3000
	श्रसायनिक उर्वरक में मिलावट की त्वरित जाँच	Dr. R.K. Singh	3000
	सूखा प्रभावित कटिहार जिला के लिए वैकल्पिक फसल योजना	KVK, Katihar	3000
	रेशमी उनी वस्त्रों की रखरखाव	Smt. Basanti Kumari	3000
	गोभी वर्गीय सब्जियों को कीटों एवं रोगों से बचाव	Dr. Sunita Kushwah	3000
	अरहर उत्पादन की उन्नत तकनिक	Dr. S.K. Singh	3000
	गाजरधास का एकीकृत नियंत्रण	Sri Pankaj Kumar	3000
Krishak samachar		KVK, Katihar	9000
TOTAL	6		42000

N.B. Please enclose a copy of each. In case of literature prepared in local language please indicate the title in English

(C) Details of Electronic Media Produced

S. No.	Type of media (CD / VCD / DVD / Audio-Cassette)	Title of the programme	Number
1	CD	Technology Week	1
2	Audio Cassette	Kisan Mela	2

(D) Details of HRD programmes undergone:

S. No.	Name of programme	Date and Duration	Organized by

3.7. Success stories/Case studies, if any (two or three pages write-up on each case with suitable action photographs)

10 .No. of success stories to be developed

- Success story IFS



Village Sakraili situated in block- Barari, Post- Semapur, District-Katihar. Main occupation of the farmers of this area is farming. Five to six year back their livelihood was purely

depend upon the farming. A Land holding of the farmers is very low. Most of the farmers were working as labours due to poverty. Most of the farmer migrated for the employment to Haryana and Punjab. Condition of women was also not good. Their husband left them for 1-2years. She spend her life alone with children. Most of the women are become widow because their husbands were suffered from malnutrient and tedious hard work as a labourer in other states. That was alarming issuee for us. Human trafficking was also a emergeng problem in this area.

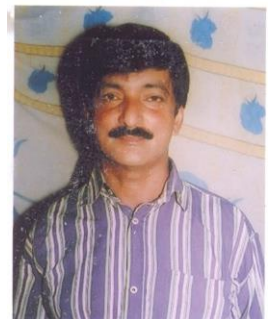
But in the year 2007 KVK started work in this village. Scientist of the KVK conducted to promote their livelihood. Farmer Sri Ashok Kumar Sah Father Sri Ramashish Sah took the activities initiation. He participated the training on poultry farming, vermi compost, neped compost etc. He started poultry unit in his village in 1400sqft area. He also trained farmers (Man & Women) of his village about poultry. Now some women started poultry farming in their backyard of house. They are involved in this work and getting good return. She did not go to the other field for labour work. KVK also started home Science & Horticultural activities like Petha making & cultivation of Banana & Maize. Presently, Ashok Kumar Sah getting 1.5 lakh per annum only through poultry production. Before this work his annual income was only Rs 10,000/-. He started Tarang Krishak Club for IFS activities. Now in his village 5-6 grops of women are ready for registration.

- Vermicompost/Vermi culture

Sri Satyendra Singh is a progressive farmer of Semapur situated in Barari Block. Few years back he was doing his farming traditionally. He was using chemical fertilizers & unimproved banana & other horticultural crops.

In the year 2005-06 he visited KVK, Katihar and shared his problem with the scientists of KVK's. Scientist told him about vermicompost. He meet with Dr. R.K Sohane, Director Extension Education, BAU, Sabour. He got the training on vermiculture and started the unit in the year 2008. He made 545 ft² vermicompost unit. He used this vermicompost in horticultural crops and getting the outstanding results. He also changed the varities of horticultural crops. He started tissue culture banana cultivation with the use of vermicompost. Now farmers of his village started production of vermicompost and tissue culture. He is getting Rs. 2 lakh per annem from vermicompost. Now this technology adopted by other villagers also.

- Myself **Kalidas Banerjee** live in a small village Rautara of Katihar district. Agriculture in my base of life and through this I fulfill my needs. In spite of this agriculture is my worship. I inspire it from my father since childhood I am dedicated towards field of agriculture, taking care of plants, cutting of spread twigs and stem, sowing of seeds and irrigation my forefather stared cultivation of fruits like mango very sincerely and said at last that this is the fruits of our hard working. Gradually I grasp this work of mango cultivation like grafting, Budding etc which gives me a new direction towards I making the parent plants more sweetest by the method of crossing with other variety of mango than I will see that after crossing of different variety of mango one new variety which is best among them which is the best and after giving new fruits when I eaten I become very happy due to unexpected tests and said everybody that this is chitranjan. And at that very day the new variety of mango was named chitranjan. Since 25 years I grafted this variety of mango and highlighted among the people. Dwring that period I interact with KVK, Katihar during the year 2010-11 prog. Coord show me a new direction towards the variety of chitranjan with the help of income centre my variety chitranjan goes



towards registration to IART, New Delhi. Scientists of KVK provide new direction regarding the upliftment of my orchard.

Chitrangan is not my mango only it's my achievement and I inspired it by my friends. Agriculture scientist, Akaswani of Purnea Centre, ETV Samvaddata and my society and my forefather blessing I news forget from whom I get an emovragement and enthusiasm.

- Sri Mahavir Singh** a progressive farmer is a people of village Badi Bathna. Sri Singh spend his childhood full despite of economic growth and uplifting of economic status of farming community of agriculture based state like Bihar specially in Kosi region where farmers are facing problems of flood, suitable cultivars, appropriate cropping system, soil based remedies, lack of well trained farmer and other farming problem. Sri Mahavir Singh was a traditional farmer and very far away from modern agro techniques and facing genuine economic and social gestures of Indian peasant. A mega initiative to provide agro based information to farmers door step KVK is committed. Based on other farmers friend information Sri Mahavir Singh from Vill.- Badibathna Dist.- Katihar get the information about the training programmes conducted by KVK. As per his training need KVK, Katihar trained Sri Mahavir Singh about suitable varieties, use of vermin compost. Bio pesticides appropriate use of insecticides and pesticides. KVK Katihar provide the improved variety of bottle gourd Narendra Rashmi and start cultivation with new idea new approaches with a new enthusiasm under the supervision of KVK, Katihar.



Seed 150gm
Area 1 Acre

Materials	Cost (Rs.)
Seed Treatment (Carbendagim)	100.00
Zink Sulphat 5 Kg (Before transplanting)	190.00
Vermi compost 10q	6000.00
Tillage	2000.00
Use of vermi compost after 30days and 2kg/plant	6000.00
Weeding	800.00
Inter cropping (Chauri)seed	150.00
Bomboo (250x60)	15000.00
Wire (15kg x 60)	900.00
Suta (8 Kg)	900.00
Labour charge (for chachri)	4000.00
Labour charge (Filling of soil)	1000.00
Calcium	650.00
Potassium	850.00
Varmi compost (2600 Kg.)	3000.00
Irrigation	720.00
Weeding 2 nd time	800.00
Neem Oil	500.00
Total	44370.00

Income

- Sell of Lalsag (Chauri) (29.09.2012 to 06.10.2012) Rs.16000.00
 - Bottle gourd (09.10.12 to 11.12.12) (14/pice total 26000 pice) (26000*14= Rs.364600/-)
- Gross Income = Rs.364400.00

Net Income = **Rs. 319630.00**

- 3.8. Give details of innovative methodology or innovative technology of Transfer of Technology developed and used during the year
- 3.9 Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK

3.10 Indicate the specific training need analysis tools/methodology followed for

- Identification of courses for farmers/farm women: Bench mark survey/discussion /feedback
- Rural Youth: Bench mark survey/discussion/feedback
- In-service personnel: Bench mark survey/discussion/feedback

3.11 Field activities

- i. Number of villages adopted; 05
- ii. No. of farm families selected;100
- iii. No. of survey/PRA conducted;01

3.12. Activities of Soil and Water Testing Laboratory; NA

1. Status of establishment of Lab : being under process
2. Year of establishment :
3. List of equipments purchased with amount :

Sl. No	Name of the Equipment	Qty.	Cost
1			
2			
3			
Total			

4. Details of samples analyzed so far :

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized
Soil Samples	25			
Water Samples				
Total				

3.13 Activities of rain water harvesting structure and micro irrigation system

No of training programme	No of demonstrations	No of plant material produced	Visit by the farmers	Visit by the officials

3.14 Technology week celebration :

Type of activities	No of activities	Number of participants	Related crop/livestock technology
Inauguration and Seminar on Crop production-cum-Training programme,Field visit	01	224	
Seminar on Horticulture Development, Field visit	01	169	
Seminar-cum-Training programme of women empowerment,Field visit	01	128	
Seminar-Cum-Training Programme On Animal Husbandary,Visit of IFS Model	01	251	
Seminar on Entrepreneurship development & Valedictory Function	01	319	

3.15 RAWE programme:

Is KVK is involved : YES

No of student/ARS trained	No of days stayed
06	1

3.16 NICRA Project : NA

Programme implemented	No of village covered	No of beneficiary covered	Amount of fund received	Amount of fund utilized

3.17 List of visitors KVK, Katihar

Sl. No.	Name of VVIP/VIP	Date of visit	Purpose of visit	Comments in the visitor's book
1	Dr. K.K. Singh Director Seed & Farms BAU, Sabour	08.04.2012	Monitoring of KVK	The overall performance of KVK is very good and I personally observed that seed crop, and other beatifications of the campus is very good condition
2	Sri Tarkishor Prasad MLA, Katihar	14.04.2012	Visiting	कृषि विज्ञान केन्द्र कृषि रोड मैप की सफलता में सहायक सिद्ध होगा। केन्द्र की व्यवस्था पूर्व से बेहतर है। मैं उत्तरोत्तर बेहतर कृषि अनुसंधान की कामना करता हूँ।
3	Dr. A.K. Singh Agronomist Dr. Bhagirathi Gupta Agronomist Dr. Arvind Singh Maize Breeder(Bayer)	15.04.2012		We have visited KVK farm has very good setup and crops showing very good. All the form layout looking very nicely.
4	Sri Surendra Pd. Singh Ex DAO, Biharsarif	24.04.2012		श्रीमति सुनीता कुशवाहा अच्छा कार्य कर रही है।
5	Sri Vimal Kumar Range Officer of forest, Katihar	11.08.2012		Felt very good regarding vegetable grower.

6	Sri Pankaj Singh Bora	12.09.2012		Thanks Dr. Sunita Kushwah & team for good working
7	Sri Sanjeev Ranjan Senior Area Manager IFFCO Purnia	19.11.2012		आज कृषि विज्ञान केन्द्र का भ्रमण करते हुए संसा लगा कि सही मायने में कृषकों के हीत में किये जा रहे अनुसंधान कार्य का दिले तारिफ है। सम्पूर्ण व्यवस्था बहुत ही अच्छा है।
8	Sri Binod Kumar MLA Pranpur Katihar	08.11.2012	Inaguration of 60days training programme of Kisan Salahkar	आज कृषि विज्ञान में आयोजित कृषि प्रशिक्षण शिविर में भाग लिया तथा फार्म में लगे धान की फसल को देखा। सुनीता कुशवाह समनव्यव की लगन शीलता से काफी प्रसन्न हुआ।
9	Sri Ramesh Chandra Upadhaya Chef Advisor NHM	10.10.2012		कृषि विज्ञान केन्द्र कटिहार किसानों के लिए समर्पित संस्था है। आशा है कि यह संस्था किसानों एवं महिलाओं तथा बेरोजगार युवकों के लिए विशेष योगदान देगा।
10	Hon'ble Dr. M.L. Choudhary V.C. BAU, Sabour Bhagalpur	03.12.12	Visited and Inagurated technology week.	
11	Dr. R.K. Sohone Director Extenson Education, BAU, Sabour	03.12.12	Visited and Inagurated technology week.	
12	Dr. Ravi Gopal Singh Director Research BAU, Sabour	15.03.13	Monitring in KVK, Katihar	
13	Hon'ble Sri Tarique Anwar State Minister of Agriculture and Food processing Gov. of India	17.03.13	Visited and participated in Kisan Mela	
14	Hon'ble Dr. M.L. Choudhary V.C. BAU, Sabour Bhagalpur	17.03.13	KVK Visited and participated in Kisan Mela	
15	Dr. A.K. Singh ZPD Zone II, Kolkata	17.03.13	Visited and Inagurated technology week.	
16	Dr. R.K. Sohone Director Extenson Education, BAU, Sabour	17.03.13	Visited and participate technology week.	
17	Dr. G.K. Ashthana Director Works and Plan BAU, Sabour	17.03.13	Visited and participate technology week.	
18	Dr. K.K. Singh Director Seed BAU, Sabour	17.03.13	Visited and participate technology week.	
19	Dr. U.S. Jaishwal Assosiate Director Extenson Education, BAU, Sabour	17.03.12	Visited and participate technology week.	
20	Dr. P.K. Singh Assosiate Director Research Education, BAU, Sabour	17.03.13	Visited and participate technology week.	
21	Dr. V.P. Chahal Principal Scientist, Agril Ext, ICAR, New Delhi	17.03.13	Visited and participate technology	

			week.	
22	Dr. V.K. Gupta Head RCM, Makhana Darbhanga	17.03.12	Visited and participate technology week.	
23	Dr. R.K. Singh Sr. Scientist IINRG, ICAR, Namkum Ranchi, Jharkhand	17.03.12	Visited and participate technology week.	
24	Dr. B.P. Singh Sr. Scientist IVRI, Izatnager, Bareilly	18.03.13	Visited and participated in Kisan Mela	It was amazing to see the performance and achievement of KVK Katihar. The PC is very hard worker and has good linkage with farmers.
25	Dr. R.K Pat Feed analyst C.P.D.O(ER) BBSR-12	18.03.13	Visited and participated in Kisan Mela	Very nice extinction I have seen in katihar for our arrangement . I ma very happy.
26	Dr. Roland A.Dey Senor Scientist (Ag.Ext.) E.R.S Of N.D.R.I Kalyani-Nadia	18.03.13	Visited and participated in Kisan Mela	I suggest the KVK's in the district should focus on fodder seeds(Cowpea rice bean) multiplication of perennial grasses & legumes.
27	Dr. R.K. Singh IINRG Nakkum Ranchi	18.03.13	Visiting and participate in Kisan Mela	Effort made in the KVK Katihar is praised work. It gave an opportunity for excellent communication among different institutes of Govs. & NGOs
28	श्री योगेन्द्र कुमार निदेशक क्षेत्रीय चारा उत्पादन एवं प्रदर्शन केन्द्र कल्याणी(प० बंगाल)	18.03.13	किसान मेला में भाग लेने हेतु।	किसान मेले में सभी नेशनल संस्थानों को एक छत के निचे इक्ठ्ठा कर किसानों को नविनतम सूचना कराने का माहन प्रयास किसा गया। भविष्य में इसको इस स्तर से उच्च स्तर पर ले जाने हेतु प्रत्येक मेला में प्रयास करने की आवश्यकता है। वर्तमान में सिमित साधनों के अंतरगत बहुत अच्छा प्रयास किया गया।
29	Dr. K. Giridhar Sr. Agronomy N.I.A.N.P Bangalore	18.03.2013	Visiting and participate in Kisan Mela	Kihan Mela arrangement very good. Farmers is very impressive many live stock farmers question interesting.
30	डा० शैलेश कुमार मिश्रा संयुक्त निदेशक (विस्तार) विस्तार निदेशालय कृषि मंत्रालय भारत सरकार, नई दिल्ली	18.03.13	किसान मेला में भाग लेने हेतु।	कृषि विज्ञान केन्द्र द्वारा आयोजित मेला एक अतिविशिष्ट किस्म का शीघ्र-प्रसार विस्तार का अनूठ कार्यक्रम है जिसका लाभ किसानों को वैज्ञानिकों एवं विभागीय अधिकारियों को मिला है। आने वाले समय में केन्द्र सरकार द्वारा नई योजनाओं के इस क्षेत्र में लागू किये जाने का निर्णय माननीय केन्द्रीय मंत्री जी श्री तारिक अनवर जी द्वारा किया गया है। सदैव किसानों द्वारा याद किया जाएगा।

4.0 IMPACT

4.1. Impact of KVK activities (Not to be restricted for reporting period).

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Improved cultivars	958	42		
Seed treatment	1090	24		
Vermicompost	810	38		
Seed production	115	6		
Fertiliser application	1200	20		
Papaya production	35	6		
Bee keeping	300	18		
Mushroom production	725	18		

NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants.

4.2. Cases of large scale adoption

(Please furnish detailed information for each case)

- ⇒ Improved cultivars
- ⇒ Seed treatment
- ⇒ Bee keeping
- ⇒ Seed production

4.3 Details of impact analysis of KVK activities carried out during the reporting period

4.5 Details of innovations recorded by the KVK

4.6 Details of entrepreneurship development by the KVK

ENTREPRENEURSHIP DEVELOPMENT AMONG FARMERS

➤ BEE- KEEPING(one box 50-60 kg)

Famers trained during 2012	Start beekeeping in a group	Production	Investment	Gross return	Remarks
Ist year	10 boxes	550 k.g.	25000/- for box 1000/- other expenses	55000/-	Net return – 20000/-
IInd year	20 boxes with 5 frame	1100 k.g	32000/-	110000/-	78000/- Present rate of 100/- Box- 400 rs frame

Vermicompost

Farmers trained during 2012	Vermicompost production	Investment	Gross return	Remarks
Ist year	1750 cubic feet	30000/-	38000/- (9500 kg production @ 4rs.)	Net income 8000/- from 1 st year
11nd year			45000/- (1125 kg@4rs)	Net income 45000/- in 2 nd year

Mushroom

Farmers trained during 2012	Vermicompost production	Investment	return	Net Return	Remarks
	1 st year (area 10*10)	2000/- (seed /4k.g Rope 2.5 k.g Formalin – ½ liter Bavistin 100 gm Polythene-2. kg) oaster	4200/- in 45 days (with 70 k.g.) rate 60/- per k.g	2220/-	Sept. to April

4.7 Any other initiative taken by the KVK

4.8 Area not covered by the above or constraints or new proposal for XII plan

5.0 LINKAGES

5.1 Functional linkage with different organizations

Name of organization	Nature of linkage
1. DAO, Katihar.	HRD & Joint Programme Like Workshop, Training, Demonstration, Crop Cutting , Field Day, Krishak Gosthi
2. DHO, Katihar.	krishak gosthi, field day, P.f training, seminar, etc.
3. IFFCO, Katihar.	- do -
4. Krivco, Katihar	- do -
5. NABARD, Katihar	- do -
6. Jute Dev. Office, Katihar.	- do -
7. DAO, Purnea.	- do -
8. Sugarcane Deapertment, Purnea	- do -
10. ATMA, Katihar	-do
11. NGO, Katihar	-do -
12. JDA(Jute), Purnia	-do-
13. AIR, Purnea	-do-
14. ETV, Hayderabad	-do-

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution received for infrastructural development, conducting training programmes and demonstration or any other

5.2 List special programmes undertaken by the KVK, which have been financed by ATMA/ Central Govt/ State Govt./NHM/NFDB/Other Agencies

Name of the programme/scheme	Purpose of programme	Date/ Month of initiation	Funding agency	Amount (Rs.)
NHm model nursery	Model Nursery	March,07	RAU, Pusa	1800000/-
Assessment	Assessment	March,11	ATMA, Katihar	100000/-
Farm Development	Kisan Hostel	March,11	BAU, Sabour	200000/-
	Pond development	March,11	BAU, Sabour	300000/-
	Road development	March,11	BAU, Sabour	100000/-
	Fencing	March,11	BAU, Sabour	300000/-
	Soil testing lab	March,11	BAU, Sabour	200000/-

6. PERFORMANCE OF INFRASTRUCTURE IN KVK : NA**6.1 Performance of demonstration units (other than instructional farm)**

Sl. No.	Demo Unit	Year of estt.	Area	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	

6.2 Performance of instructional farm (Crops) including seed production

Name Of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Cereals									
Paddy	23.07.11	24.10.12	3	Rajendra bhagwati	Seed	49.99	38000/-	65903/-	
	28.07.11	16 October	1.5	Ushar Dhan 3	Seed	28	12000/-	32003/-	
Wheat	27.11.11	10.04.12	3.5	HD-2733	Seed	45.20	90000/-	154640/-	
	05.12.11	11.04.12	1	PBW-373	Seed	19.97	25000/-	57080/-	
Pulses (Arhar)	02.07.12	08.04.13	0.5	NDA-1	Seed	7.45	9000/-	30000/-	
Moong	14.04.12	29.07.12	0.25	Samrat	Seed	1	600/-	3040/-	
Oilseeds									
Mustard	11.12.12	26.03.12	0.5	Suflam	Seed	3	42000/-	11514/-	
Til	16.07.12	16.10.13	0.5	Krishna	Seed	3			
Spices & Plantation crops									
Floriculture									
Fruits									
Vegetables									
Others (specify)									

6.3 Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.,) :NA

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	

6.4 Performance of instructional farm (livestock and fisheries production) :NA

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1	Birds (Hen)	Vanraja		500	10000/-	14500/-	

6.5 Utilization of hostel facilities:

Electrification completed
Sanitation facility completed

Accommodation available (No. of beds)

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
May 2012	30	5	
July 2012	25	3	
Nov 2012	30	60	
Dec 2012	30	60	
Jan 2013	30	60	

(For whole of the year)

6.5 Utilization of staff quarters

Whether staff quarters has been incomplete (Construction under progressive):

No of staff quarters:

Date of completion:

Occupancy

Months	Q I	Q II	Q III	Q IV	Q V	Q VI

7. FINANCIAL PERFORMANCE

7.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location	Account Number
With Host Institute	SBI	Katihar	10501337736
With KVK	SBI	Katihar	10501342703

7.2 Utilization of funds under FLD on Oilseed (Rs. In Lakhs);NA

Item	Released by ICAR		Expenditure		Unspent balance as on 1 st April 2013
	Kharif 2011	Rabi 2012-13	Kharif 2011	Rabi 2012-13	
Inputs					
Extension activities					
TA/DA/POL etc.					
TOTAL					

7.3 Utilization of funds under FLD on Pulses (Rs. In Lakhs);NA

Item	Released by ICAR		Expenditure		Unspent balance as on 1 st April 2013
	Kharif	Rabi	Kharif	Rabi	
Inputs					
Extension activities					
TA/DA/POL etc.					
TOTAL					

7.4 Utilization of funds under FLD on Cotton (Rs. In Lakhs);NA

Item	Released by ICAR		Expenditure		Unspent balance as on 1 st April 2013
	Kharif	Rabi	Kharif	Rabi	
Inputs					
Extension activities					
TA/DA/POL etc.					
TOTAL					

7.5 Utilization of KVK funds during the year 2009 -10

S. No.	Particulars	Sanctioned (Rs.in lakh)	Released (Rs.in lakh)	Expenditure (Rs)
A. Recurring Contingencies				
1	Pay & Allowances			
2	Traveling allowances			
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)			
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)			
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
TOTAL (A)				

Utilization of KVK funds during the year 2012 -13

S. No.	Particulars	Sanctioned (Rs.in lakh)	Released (Rs.in lakh)	Expenditure (Rs)
A. Recurring Contingencies				
1	Pay & Allowances	31.90	31.90	31.90(Rs. 16/- saved)
2	Traveling allowances	0.90	0.90	0.90
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	9.00	9.00	9.00
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)			
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	3.00	3.00	3.00
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	1.50	1.50	1.50
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	1.00	1.00	1.00
G	Training of extension functionaries			
H	Maintenance of buildings	0.50	0.50	0.50
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
TOTAL (A)		47.80	47.80	47.80
B. Non-Recurring Contingencies				
1	Works			
2	Equipments including SWTL & Furniture			
3	Vehicle (Four wheeler/Two wheeler, please specify)			
4	Library (Purchase of assets like books & journals)			
TOTAL (B)				
C. REVOLVING FUND				
TOTAL (B)				
Grand Total (A+B)				

7.5 Status of revolving fund (Rs. in lakhs) for the last three years

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st April of each year (Kind + cash)
April 2010 to March 2011	137414.49	196042.00	197912.00	135544.49
April 2011 to March 2012	135544.49	428018.00	431734.00	135544.49
April 2012 to March 2013	1233898.49	999923.00	594485.00	1639336.49

7.6 Any other significant achievements (provide full details with action photograph)

7.7 Number of SHGs formed by KVKs/associated with SHGs formed by other organizations.